BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents *will not* correct images, please do not report the images to the Image Problem Mailbox.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/771,909	01/29/2001	Michael B. Bengtson	27600/M221A	7906

4743 7590 07/15/2004

MARSHALL, GERSTEIN & BORUN LLP
6300 SEARS TOWER
233 S. WACKER DRIVE
CHICAGO, IL 60606

EXAMINER	
SHIFERAW, ELENI A	

ART UNIT	PAPER NUMBER
2136	

DATE MAILED: 07/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/771,909	BENGTSON, MICHAEL B.	
	Examiner	Art Unit	
	Eleni A Shiferaw	2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-28 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-28 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 09232002.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-28 are presented for examination.

Specification

2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

3. As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(f) BRIEF SUMMARY OF THE INVENTION.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 3-7, 10-11, 13-16, 18, 20, 22, 24, 26-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Kurachi (Patent No.: US 6,181,436 B1).

6. As per claim 1, Kurachi teaches a method for obtaining a printed copy of a document at a printer from a server via a client, the method comprising the steps of:

installing a private encryption key in the printer, the private encryption key being unavailable to the client and the server; (Col. 14 lines 47-54),

providing the server with a public encryption key, the public encryption key being associated with the private encryption key, the public encryption key being different than the private encryption key; (Col. 13 lines 30-54),

receiving an encrypted file at the printer from the server via the client, the encrypted file being encrypted using the public encryption key; (Col. 13 lines 17-24, col. 14 lines 47-55),

generating decrypted data associated with the document by decrypting the encrypted file in the printer using the private encryption key; (Col. 13 lines 63-col. 14 lines 10, col. 14 lines 47-55), and

printing the document at the printer using the decrypted data (Col. 10 lines 41-54, fig. 9 No. 3e).

7. As per claim 13, Kurachi teaches a printer for printing a copyrighted document based on encrypted data received via the Internet, the printer comprising:

a communication port operatively coupled to the Internet; (Col. 7 lines 10-23, col. 5 lines 51-67, fig. 7 No. 4 and No. 203),

a memory device storing an embedded encryption key, the embedded encryption key being unavailable outside the printer; (Col. 14 lines 46-54, col. 7 lines 64-col. 8 lines 26, Fig. 2b),

a decryption module electrically coupled to the communication port and the memory device, the decryption module being adapted to receive an encrypted version of the copyrighted document via the communication pod, the decryption module being adapted to convert the encrypted version of the copyrighted document into decrypted data indicative of the copyrighted document using the embedded encryption key; (Col. 14 lines 26-32, col. 12 lines 61-65, and fig. 9), and

a printing mechanism operatively coupled to the decryption module, the printing mechanism being adapted to receive the decrypted data and print the copyrighted document based on the decrypted data (Col. 15 lines 24-40, col. 8 lines 14-16, and col. 10 lines 41-54).

8. As per claim 3, Kurachi teaches a method, wherein the step of installing a private encryption key in the printer comprises the step of installing the private encryption key in a replaceable ink cartridge (Col. 8 lines 13-16; ink cartridge is typically used in an ink-jet printer).

9. As per claim 4, Kurachi teaches a method, wherein the step of providing the server with a public encryption key comprises the step of retrieving the public encryption key from the printer (Col. 13 lines 17-54).

10. As per claim 5, Kurachi teaches a method, wherein the step of providing the server with a public encryption key comprises the step of transmitting the public encryption key from the client to the server (Col. 11 lines 60-col. 12 lines 3).

11. As per claim 6, Kurachi teaches a method, wherein the step of providing the server with a public encryption key comprises the step retrieving the public encryption key based on a unique identification code associated with the printer (Col. 11 lines 60-col. 12 lines 3, col. 13 lines 17-54).

12. As per claim 7, Kurachi teaches a method, wherein the step of providing the server with a public encryption key comprises the step retrieving the public encryption key based on a unique identification code associated with a print cartridge (Col. 14 lines 26-32, col. 13 lines 17-54).

13. As per claim 10, Kurachi teaches a method, further comprising the step of transmitting a request for the encrypted file from the client to the Server (Col. 3 lines 5-15).

14. As per claim 11, Kurachi teaches a method, wherein the step of generating decrypted data associated with the document by decrypting the encrypted file in the printer using the private encryption key comprises the step of using the private encryption key indirectly by:

using the private encryption key to decrypt an encrypted session key; (Col. 4 lines 26-32), and

decrypting the encrypted file using the decrypted session key (Col. 13 lines 30-45).

15. As per claim 14, Kurachi teaches a printer, wherein the communication port is electrically coupled to a client device (Fig. 6 No. 8, 9a, and 9b).

16. As per claim 15, Kurachi teaches a printer, wherein the communication port is electrically coupled to a document server via the Internet (Fig. 6).

17. As per claim 16, Kurachi teaches a printer, wherein the embedded encryption key comprises an asymmetric private encryption key (Col. 13 lines 30-45).

18. As per claim 18, Kurachi teaches a printer, further comprising a controller operatively coupled to the communication pod and the printing mechanism, the controller being adapted to receive non-encrypted data indicative of a non-copyrighted document from the communication port, the controller being adapted to transmit control signals to the printing mechanism to print the non-copyrighted document (Col. 15 lines 24-40).

19. As per claim 20, Kurachi teaches a printer, wherein the decryption module comprises a replaceable ink cartridge (Col. 8 lines 13-16).

20. As per claim 22, Kurachi teaches a printer, wherein the private key is inaccessible outside the replaceable ink cartridge (Col. 13 lines 63- col. 14 lines 54).

21. As per claim 24, Kurachi teaches a printer, wherein the memory device stores a public encryption key, the public encryption key being electronically accessible via the communication port (Col. 14 lines 26-31).

22. As per claim 26, Kurachi teaches a printer, wherein the decryption module is adapted to receive an encrypted session key from the communication port, the decryption module being adapted to decrypt the encrypted session key using the embedded encryption key, the decryption module being adapted to employ the decrypted session key during conversion of the encrypted version of the copyrighted document into decrypted data (Col. 4 lines 48-63).

23. As per claim 27, Kurachi teaches a printer, wherein the printing mechanism comprises a plate maker (Col. 9 lines 46-53).

24. As per claim 28, Kurachi teaches a printer, wherein the printing mechanism comprises a film recorder (Col. 11 lines 5-14).

Claim Rejections - 35 USC § 103

25. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

26. Claims 2, 19, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurachi (Patent No.: US 6,181,436 B1) in view of Lee et al. (Lee, US Patent No. 5,606,613).

27. As per claim 2, Kurachi teaches all the subject matter as described above.

Kurachi does not explicitly teach tamper resistant electrical module.

However Lee teaches a digital printer memory units secured in a tamper resistant hosing (Col. 1 lines 41-67)

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the teachings of Lee with in the system of Kurachi because it would allow the integrated circuit (ASIC) and a plurality of memory units to be secured in a tamper resistant housing (Col. 1 lines 41-47), and allow the digital printer efficiently decrypt a ciphered data and print out deciphered data. (Abstract) Therefore it would have been obvious to combine the teachings of Lee with in the system of Kurachi.

28. As per claim 19, Kurachi and Lee teach all the subject matter as described above. In addition, Lee teaches a printer, wherein the decryption module comprises a tamper resistant housing. (Col. 1 lines 41-67) The rational for combining are the same as claim 2 above.

29. As per claim 21, Kurachi and Lee teach all the subject matter as described above. In addition, Lee teaches a printer, wherein the replaceable ink cartridge comprises a tamper resistant housing. (Col. 1 lines 41-67) The rational for combining are the same as claim 2 above.

30. Claims 8-9, 12, 17, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurachi (Patent No.: US 6,181,436 B1) in view of Lee et al. (Lee, US Patent No. 5,606,613), and in further view of Cordery et al. (US Patent Number 6,064,989).

31. As per claim 8, Kurachi and Lee teach the subject matter as described above.

Kurachi and Lee do not explicitly teach printer serial number.

However Cordery teaches a method, wherein the step of providing the server with a public encryption key comprises the step retrieving the public encryption key from a certification authority based on a serial number retrieved from the printer. (Col. 7 lines 18-67)

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teachings of Cordery with in the system of the combination of Lee and Kurachi because it would allow a user to identify a printer and provide security. "The serial number of the printer 130 is unique to each printer 130 in the preferred embodiment so as to provide the greatest degree of security, no two keys are the same. In summary, the meter 130 has the capability to make a key which is specific to the particular printer 130 with which it is in communication" (Col. 6 lines 16-43).

32. As per claim 9, Kurachi, Lee, and Cordery teach all the subject matter.
In addition, Cordery teaches a method, wherein the step of providing the server with a public encryption key comprises the step retrieving the public encryption key from a certification authority based on a serial number retrieved from a print cartridge. (Cordery, Col. 7 lines 18-67)
The rational for combining are the same bases as claim 8 above.

33. As per claim 12, Kurachi, Lee, and Cordery teach all the subject matter.
In addition, Cordery teaches a method, wherein the step of generating decrypted data associated with the document by decrypting the encrypted file in the printer using the private encryption

key comprises the step of decrypting the entire encrypted file using the decrypted symmetric encryption key directly. (Col. 2 lines 1-19, col. 7 lines 18-67) Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teachings of Cordery with in the system of the combination of Lee and Kurachi because it would apply the printer 130 to decrypt the message using the symmetric (same) key stored in the memory 134 of the printer 130 and makes a determination whether the received serial number matches the actual serial number of the printer 130 (col. 7 lines 18-67).

34. As per claim 17, Kurachi, Lee, and Cordery teach all the subject matter.
In addition, Cordery teaches a printer as defined in claim 13, wherein the embedded encryption key comprises an symmetric session key. (Col. 2 lines 1-19, col. 7 lines 18-67) The rational for combining are the same as claim 12 above.

35. As per claim 25, Kurachi, Lee, and Cordery teach all the subject matter.
In addition, Cordery teaches a printer, wherein the memory device stores a serial number, the serial number being electronically accessible via the communication pod. (Col. 5 lines 12-39) The rational for combining are the same bases as claim 8 above.

36. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kurachi (Patent No.: US 6,181,436 B1), Lee et al. (Lee, US Patent No. 5,606,613), and Cordery et al. (US Patent Number 6,064,989) in view of Chan et al. (Chan, US Patent No.: 6,378,070)

37. As per claim 23, Kurachi, Lee, and Cordery teach all the subject matter as described above.

The combination of Kurachi, Lee, and Cordery does not explicitly teach a smart card.

However Chan teaches a printer, wherein the decryption module comprises a smartcard. (Col. 5 lines 6-22)

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Chan with the combination of Lee, Kurachi, and Cordery because the printing apparatus would interact with a smart card in order to retrieve and/or decrypt the document using information and/or functionality programmed into a smart card provided by the recipient and would increase the security of remote printing (Col. 2 lines 7-53).

38. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eleni A Shiferaw whose telephone number is 703-305-0326. The examiner can normally be reached on Mon-Fri 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R Sheikh can be reached on 703-305-9648. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Eleni Shiferaw

Art Unit 2136

AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100